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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/822,095

04/12/2004

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EXAMINER

HALIYUR, VENKATESH N

ART UNIT

PAPER NUMBER

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07/10/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/822,095	<b>Applicant(s)</b> SHINODA ET AL.	
	<b>Examiner</b> VENKATESH HALIYUR	<b>Art Unit</b> 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04/24/2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-51 (claims 8,17,19-46 are canceled) is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-16,18 and 47-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/23/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 04/24/2009 has been considered. The finality of the office action communicated in the previous office action has been withdrawn in view of the new ground(s) of rejection made in this office action using a newly found reference. Please also refer to the interview summary mailed on 01/27/2009 in response to request for withdrawal of finality of 10/02/2008. Rejection follows.

2. Claims 1-51 are pending in the application. Claims 8, 17, 19-46 are canceled.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 9-16, 18, 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess [US Pat: 5,695,859] and Reeb [US Pat: 4,792,790] further in view of Steigerwald et al [US Pat: 5,912,809]

Regarding claims 1,10, Burgess in the invention of “Pressure Activated Switching Device” disclosed a communication apparatus elements comprising: a first conductive layer and a second conductive layer and a plurality of communication elements that are connected to the first conductive layer and the second conductive layer (**upper and lower conductive layers, col 2, lines 26-35, col 2, lines 51-67, col 15, lines 13-24**), wherein a first communication element of the plurality of communication elements, initiating transmission to a second communication element of the plurality of communication elements, is operative to control a voltage between the first conductive layer and the second conductive layer (**col 14, lines 11-32, Fig 10**) letting the second communication element to acknowledge a change in the voltage propagated around the first communication element as a signal (**col 4, lines 60-67, col 5, lines 1-27, Figs 1**), wherein the second communication element is operative to monitor the signal from the first communication element and acknowledge the change in the voltage between the first conductive layer and the second conductive layer as the signal (**col 8, lines 51-67, col 9, lines 1-26, Fig 2**), but fails to disclose wherein the second communication element is assigned an ID identifying the elements and the signal includes an ID identifying a recipient communication element of the plurality of communication elements which is subsequently to receive the signal, and wherein the recipient communication element determines whether a signal is destined to the element by referring to the ID included in the signal. However, Reeb disclosed a device that transmits signals which includes unique

identification of a particular layer sending the signal **(Fig 30, col 19, lines 5-41)**.

Therefore it would have been possible for one of ordinary skill in the art at the time the invention was made to use the method of transmitting source and the final destination identification in the signal as taught by Reeb in the system of Burgess to include assigning second communication element an ID, identifying the elements and a recipient ID, identifying a recipient communication element of the plurality of communication elements in the signal. Both Burgess and Reeb fail to disclose the feature wherein the plurality of communication elements can be placed for communication without individual conductive wires. However, Steigerwald et al disclosed the method for plurality of communication elements placed for communication without individual conductive wires **(col 9, lines 49-67, , col 8, lines 28-58, Figs 6-8)**. Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of placing plurality of communication elements without individual conductive wires for communication between the elements as taught by Steigerwald et al in the system of Burgess as modified by Reeb to include the feature wherein the plurality of communication elements can be placed for communication without individual conductive wires. One is motivated as such in order to include the source and final destination identification (ID) in the signal transmitted by the sensor device for the recipient communication element to determine whether a signal is destined to the element by referring to the ID included in the signal in order to communicate between the elements wirelessly.

Regarding claims 2, 11, Burgess disclosed where in the first communication element is operative to generate, as the signal, the change in the voltage between the first conductive layer and the second conductive layer propagated concentrically around the first communication elements (**col 9, lines 54-67, col 10, lines 1-22**).

Regarding claims 3-4,12-13, Burgess et al fails to disclose wherein the transmitted signal includes an ID identifying a communication element which is a final destination of the signal and wherein the transmitted signal includes an ID identifying a communication element which is an originating source of transmission of the signal. However, Reeb disclosed a device that transmits signals which includes unique identification of a particular layer sending the signal (**Fig 30, col 19, lines 5-41**). Therefore it would have been possible for one of ordinary skill in the art at the time the invention was made to use the method of transmitting source and the final destination identification in the signal as taught by Reeb in the system of Burgess to include assigning second communication element an ID, identifying the elements and a recipient ID, identifying a recipient communication element of the plurality of communication elements in the signal. One is motivated as such in order to include the source and final destination identification (ID) in the signal transmitted by the sensor device for the recipient communication element to determine whether a signal is destined to the element by referring to the ID included in the signal.

Regarding claims 5, 14, Burgess disclosed, wherein each of the communication elements allows local communication with other neighboring communication elements (**col 2, lines 51-63**), the local communication allowing sequential transmissions of a signal between the communication elements to convey the signal to a target communication element, said target communication element being disposed between the first and the second conductive layers (**col 15, lines 13-24**).

Regarding claim 6, 15, Burgess disclosed wherein the first conductive layer and the second conductive layer are flat layers (**col 10, lines 23-36**).

Regarding claim 7, 16, Burgess disclosed wherein the first conductive layer and the second conductive layer are uniform conductive layers (**col 12, lines 37-49**).

Regarding claim 9, 18, Burgess disclosed comprising a sensor element including a circuit for measuring stress or temperature (**force or stress, col 10, lines 57-65, col 12, lines 55-67, col 13, lines 1-14**).

Regarding claim 47, 49 Burgess et al disclosed wherein the plural communication elements are laterally spaced from each other so as to not overlap each other in a direction of disposition of the first and second conductive layers (**vertically stacked layers, col 2, lines 36-50**).

Regarding claims 48, 50 Burgess et al disclosed wherein the plurality of communication elements is physically disposed between the first and second

conductive layers (**plurality of discrete electrodes individually positioned, col 2, lines 26-35**).

Regarding claim 51, Burgess et al disclosed wherein the plural communication elements are laterally spaced from each other so as to not overlap each other in a direction of disposition of the first and second conductive layers (**layers are aligned and laterally disposed, col 10, lines 57-65**).

### ***Response to Arguments***

5. Applicant's arguments, remarks filed on 04/24/2009, with respect to the rejection(s) of claim(s) 1-51 under 35 U.S.C 103(a) have been fully considered. The finality of the rejection communicated via previous office action has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found reference.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies i.e. the embodiments as disclosed in Figs 8-10 for a current-diffusion-type communication device are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims as the claim limitations presented in current form are broad.



***Conclusion***

6. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616.

The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, Art Unit 2419

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2419